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	Application Number	10/541,057	
IRE NT	Filing Date	June 29, 2005	
	First Named Inventor	Payne, et al.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	7512.175	

Examiner	Cite	Document Number	Publication Date	T DOCUMENTS	
Initials* No.1		Boodinent Number	MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan
***	ļ	Number-Kind Code <sup>2 (if known)</sup>		Applicant of Oxed Boodinent	Figures Appear
		<sup>US-</sup> 2006/0078962	04-13-2006	Chen, et al.	
		<sup>US-</sup> 4,148,689	04-10-1979	Hino et al.	
	<u></u>	<sup>US-</sup> 5,015,576	05-14-1991	Nilsson et al.	
		<sup>US-</sup> 5,147,698	09-15-1992	Cole	
79.1		<sup>US-</sup> 5,422,116	06-06-1995	Yen, et al.	
		<sup>US-</sup> 5,474,989	12-12-1995	Hashimoto et al.	
		<sup>US-</sup> 5,658,592	08-19-1997	Tanihara et al.	
_		<sup>US-</sup> 5,830,459	11-03-1998	Cuero et al.	
		<sup>US-</sup> 6,044,800	04-04-2000	Kubo et al.	
		<sup>US-</sup> 6,245,901	06-12-2001	Von der Osten et al.	
		<sup>US-</sup> 6,562,363	05-13-2003	Mantelle et al.	
		<sup>US-</sup> 6,623,950	09-23-2003	Von der Osten et al.	
		<sup>US-</sup> 6,638,621	10-28-2003	Anderson et al.	
		US-			

No.1	Cite Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines,	Т
	Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of oned boddment	Or Relevant Figures Appear	ד
	WO 00/11038	03-02-2000	Kumar		
	JP A 9 239 396				7
	WO 2004/018741	03-04-2004	Yi		r
	JP-310041	11-24-1998	Ono et al.		7
					Г
	No.1	No. 1  Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (if known)  WO 00/11038  JP A 9 239 396  WO 2004/018741	No. 1 Date MM-DD-YYYY  WO 00/11038 03-02-2000  JP A 9 239 396  WO 2004/018741 03-04-2004	No.¹	No. 1         Date MM-DD-YYYY         Applicant of Cited Document         Where Relevant Passages Or Relevant Figures Appear           WO 00/11038         03-02-2000         Kumar           JP A 9 239 396         WO 2004/018741         03-04-2004         Yi

Examiner Signature	/Harry Wilkins/	Date Considered	06/16/2010
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Attorney Docket Number

Examiner	Cite	NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	
Initials*	No. <sup>1</sup>	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Li-Qun Wu, et al., "Chitosan-Mediated and Spatially Selective Electrodeposition of Nanoscale Particles," Langmuir, Vol. 21, No. 8, pp. 3641-3646 (2005)	
		Li-Qun Wu, et al., "Spatially Selective Deposition of a Reactive Polysaccharide Chitosan Layer onto a Patterned Template," Langmuir, Vol. 19, No. 3, pp. 519-524 (2003)	
		Li-Qun Wu, et al., "Voltage-Dependent Assembly of the Polysaccharide Chitosan onto an Electrode Surface," Langmuir, Vol. 18, No. 22, pp. 8620-8625 (2002)	
		Tianhong Chen, et al., "Enzymatic Methods for in Situ Cell Entrapment and Cell Release," Biomacromolecules, Vol. 4, No. 6, pp. 1558-1563 (2003)	
		Mark J. Kkastantin, et al., "Integrated Fabrication of Polymeric Devices for Biological Applications," Invited Paper, Journal of Sensors and Materials, pp. 1-18 (9/2003)	
		Tianhong Chen, et al., "Nature-Inspired Creation of Protein Polysaccharide Conjugate and Its Subsequent Patterned Surface," Langmuir, Vol. 19, No. 22, pp. 9382-9386 (2003)	
		Rohan Fernandes, et al., "Eletrochemical Induced Deposition of a Polysaccharide Hydrogel onto a Patterned Surface," Langmuir Vol. 19, No. 10, pp. 4058-62 (2003)	
		Hyunmin, Yi, et al., "A Robust Technique for Assembly of Nucleic Acid Hybridiziation Chitosan," Analytical Chemistry, Vol. 76, No. 2, pp. 365-372 (1/15/2004)	
		Rohan Fernandes, et al., "Thermo-Biolithography: A Technique for Patterning Nucleic Acids and Proteins," Langmuir, Vol. 20, No. 3, pp. 906-913 (2004)	
		Li-Qun Wu, et al., "Spatially Selective Asembly of a Reactive Polysaccharide Layer onto Patterned Surfaces," Power Point Presentation of 11/8/2002 (22 slides)	

Examiner	/Harry Millians/	Date	00/40/0040
Signature	/Harry Wilkins/	Considered	06/16/2010

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<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Examiner Cit Initials* No		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
		Sun et al., Tyronsinase-Containing Chitosan Gels: A Combined Catalysts and Sorbent for Selective Phenol Removal. Biotechnology and Bioengineering, Vol 51, pp. 79-86			
		Tatsumi, K. et al., Removal of Phenols from Wastewater by an Enzyme and Chitosan, Advances in Chitin Sciences, Vol. 2, pp. 864-869 (1997)			
		Muzzarelli, et al., TYrosinase-Mediated Quinone Tanning of Chitinous Materials, Carbohydrate Polymers, Vol. 24, pp. 295-300 (1994)			
		Wada et al., "Removal of Phenols and Aromatic Amines from Wastewater by a Combination a Coagulent," Biotechnology and Bioengineering, Vol. 45, pp. 304-309 (1995)			
		Payne et al., "Tyrosinase Reaction/Chitosan Adsorption for Selectively Removing Phenols from Aqueous Mixtures," Biotechnology & Bioengineering, 40, No. 9 (1992)			

Examiner	/Harry Wilkins/	Date	06/16/2010
Signature	/naity vviikins/	Considered	00/10/2010

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